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GenCore version 4.5 Copyright (c) 1993 - 1998 Compugen Ltd. OM nucleic - nucleic search, using sw model

January 18, 2000, 21:02:06; Search time 3378.13 Seconds (without alignments) 3935.252 Million cell updates/sec Run on:

1 ggcacgagccggccgcacgt.....ggtaagtgtacccaattcgc 3109 US-09-303-232-5 3109 Title: Perfect score: Sequence:

IDENTITY_NUC coring table:

780561 seqs, 2137953050 residues GenEmbl:* Searched:

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em_fun: *
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pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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ALIGNMENTS

AF143847 3029 bp mRNA INV 27-MAY-1999 Heliothis virescens putative nicotinic acetylcholine receptor alpha 7-2 subunit mRNA, complete cds. AF143847 94895006 AF143847.1 GI:4895006 Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta; Eukaryota; Metazoa; Arthropoda; Tracheata; Glossata; Ditrysta; Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysta; Noctuoidea; Noctuidea; Heliothinae; Heliothis.

1 (bases 1 to 3029)
Schulte,T., Oellers,N. and Adamczewski,M.
Putative alpha subunits of insect nicotinic acetylcholine receptors more similar to vertebrate alpha 7 subunits and C. elegans Ce21 than to other insect nicotinic acetylcholine receptor alpha Heliothis virescens tobacco budworm. VERSION KEYWORDS SOURCE ORGANISM LOCUS REFERENCE AUTHORS TITLE ACCESSION RESULT AF143847

SUMMARIES

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Schulte,T., Oellers,N. and Adamczewskl,M.
Direct Submission
Submitted (19-APR-1999) ZF-BTB, Bayer AG, 51368, Germany
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Eukaryota; Metazoa; Arthropoda; Tracheata; Giossata;
Eutryota; Mootteoidea; Bedopterygota; Lepidoptera; Giossata;
Ditrysla; Noctucidea; Noctuidae; Hellothinae; Hellothis.

1 (bases 1 to 3629)
Schulter, Oallars, N. and Adamczewski, M.
Putative alpha subunits of insect nicotinic acetylcholine recept
more similar to vertebrate alpha 7 subunits and C. elegans Ce21
than to other insect nicotinic acetylcholine receptor alpha
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2 (bases 1 to 3629)
Schulte,T., Oellers,N. and Adamczewski,M.
Direct Submission
5ubmitted (19-APR-1999) ZF-BTB, Bayer AG,
51368, Germany
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Submitted (23-UUN-1997) Vogel R., Botanisches Institut,
Universitaet Heidelberg, Im Neuenheimer Feld 360, 69120 Heidelberg
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Beta vulgaris cDNA for elongation factor 2.
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Vogel, R. and Rausch, T.
Unpublished
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BASE COUNT ORIGIN

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                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalla; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. (basea 1 to 1519)
Han, J., Lee, J.D., Jlang, Y., Li, Z., Feng, L. and Ulevitch, R.J. Characterization of the structure and function of a novel MAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Direct Submission
Submitted (23-OCT-1995) Jiahuai Han, Immunology, The Scripps
Research Institute, 10666 N. Torrey Pines Rd., La Jolla, CA 9
USA
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0; Indels
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Best Local Similarity 100.0%; Pred. No. 7.6e-38; Matches 90; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          kinase kinase (MKK6)
J. Biol. Chem. 271 (6), 2886-2891 (1996)
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1. .2015
/organism="Mus musculus"
/db_xref="taxon:10090"
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Murine MAP kinase 6c MRNA,
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/note-"protein kinase"
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1 (bases 1 to 2873)

Liao, E.C., Paw, B.H., Oates, A.C., Pratt, S.J., Postlethwait, J.H. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 (bases 1 to 2873)
Liao, E.C., Paw, B.H., Oates, A.C., Pratt, S.J., Postlethwait, J.H. and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AF045432 2873 bp mRNA VRT 18-MAR-1998
Danio rerio stem cell leukemia protein (tal-1) mRNA, complete cds.
AF045432
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Submitted (30-JAN-1998) Hematology/Oncology, Harvard Medical
School, 300 Longwood Avenue, Boston, MA 02115, USA
Location/Qualifiers
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1. .2873
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                          FDHWEMMFSDFLEAGSQASTLVSVIRKRKGLKEOMTFLSEFEDKL"
623 c 776 g 863 t
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/db_xref="PID:92921801"
/db_xref="GI:2921801"
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8.9e-43;
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3.2%; Score 99; DB
Best Local Similarity 100.0%; Pred. No. 8.9
Matches 99; Conservative 0; Mismatches
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/organism="Danio rerio"
/db_xref="taxon:7955"
/chromosome="LG XXII"
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3. 「	Db 1621 CGACTACGAGCTCTCCCTCATTCTGAAGGAGATTAGAGTCACAGATCAGATCGGATGAGATGAGAT 1680 Oy 1681 ggacgacgaagagacattcggggactggaagttcgccgccatggtcgtggacag 1740 Db 1681 GGACGACGAAGAGAGACTTCGGCGAATGGAAGTTCGCCGCATGGAAGTTCGCCGCATGGAAGTTCGCCGCATGGAAGTTCGCCGCATGGAAGTTCGCCGCATGGAAGTTCGCCGCATGGAAGTTCGCCGCATGGAAGTTCGCCGCATGGAAGTTCGCCGCATGGAAGTTCGCCGCATGGAAGTTCGCCGCATGGAAGTTCGCCGCATGGAAGTTCGCCGCATGGAAGTTCGCCGCATGGAAGTTCGCCGCCATGGAAGTTCGCCGCCATGGAAGTTCGCCGCCATGGAACTTCGCCGCATGGAAGTTCGCCGCCATGGAACTTCGCCGCCATGGAACTTCGCCGCCATGGAACTTCGCCGCCATGGAACTTCGCCGCCATGGAACTTCGCCGCCATGGAACTTCGCCGCCATGGAACTTCGCCGCCATGGAACTTCGCCGCCATGGAACTTCGCCGCCATGGAACTTCGCCGCCATGGAACTTCGCCGCCATGGAACTTCGCCGCCATGGAACTTCGCATGCAACTTCGCCGCCATGGAACTTCGCATGCAACTTCGCCGCCATGGAACTTCGCATGCAACTTCGCATGCAACTTCGCATGCAACTTCGCATGCAACTTCGCATGCAACTTCGCATGCAACTTCGCACTTCGCAACTTCGAACTTCAAC	1741 actgtgccttåttatctttacctgttcacaatcatcgccacgtagccgtggctgctgttc 180 1741 actgtgccttåttatctttaccctgttcacaatcatcgccacgctagccgtgctgctgctgtt 1741 actgtgccttåttatctttaccctgttcacaatcatcgccacgctagccgtgctgctgctgtg 1741 actgtgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcg	41 ACTGIGCOLIANTALIZATION CONTROLLA	1861 tctgtgataccgcgaatatttgttaagttgtgatgacgaagtggcgcggacggtgacgc 19 1861 tctgtgataccgcgaatatttll	61 TCTGFGATACCGCGAATATTTGFTAAGFTGTGATGAGCGAAGGGAAGG	GTCGGAGTTGCCGCCCCCCTGCCTCGCCGCCCCCCCTGTANGATATATATATATATATATATATATATATATATAT	2041 atcccttgaaaaattcagcgattgtgtaccctttcttccaagaatacaatgacaaa	2101 gtcgtcacgtcagtggaatcaatcccgtactcttcgcccgatatttcccttagggtatg	statokostada bokantanicos ikiinosoomaa ja ka	221 gcgataaagtggcagtacgtgctatacaggcacttaaggccgccacgccacggcgccgc 228	2281 gtgcgctcgggccgcgaacccgcgacctcaccgctgcaagtggccacccac	81 GTGCGCTCGGGCCGCGGAACCCGCGACCTTACCGCTGCAAGTGGCCACCACCACCAGGAAGAAG 23% 41 actgcggcagaaatatttgcacaaaaacgtcttccttcttaccgatgaacgacctgatt 240	2341 ACTGCGGCAGAAAAATATTTGCACAAAAACGTCTTCCTTC	401 CGCRIIIARANIIARACIIIOIIRASANCIIIIIIOIIRASANCIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	2521 ggttataatccctagttttattttcggatatatttgtgtcagtagctagtatagaacttt	Oy" 2581 acaaacaatgttgattcaattggtacaggttgtgatatgcctcgttgtgacgggtccga 2640 	Oy 2641 tattgttataaatggtaaaatacccatggctatagtataataaatgttcgttaaaagtt 2700 	taaa

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32 : 2873 bp mRNA VRT 18-MAR-1998 rerio stem cell leukemia protein (tal-1) mRNA, complete cds. 32 000
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PSNRVKRRAPAYEVEENGSOPRIVARIPHENGRERARGONVWGAFAELAKLIPTHPPD
PSNRVKRRAPAYEVEENGROSVIGNIARIHAPD
KKILSKNEILRLAMKYINIALAMLYODONWGGEAPARANRDSRDATLVRDDILÆMLS
KKILSKNEILLAMKYINIALAMLYODONWGGEAPARANRDSRDATLVRDDILÆMLS
PNSGGTILLGGDASPESFTEDODSSVGYQALGKRTTPFQPTAGRKCPAVTDWRH"

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1 (bases 1 to 2370)

Kiyosawa, H. and Chance, P.F.

Riyosawa, H. and Chance, P.F.

Primate origin of the CmTlA.REP repeat and analysis of a putative primate origin of the Combinational hotspot

Hum. Mol. Genet. 5 (6), 745-753 (1996)
                                                                                         SCL/Tal-1 transcription factor acts downstream of cloche to specify hematopoietic and vascular progenitors in zebrafish Genes Dev. 12 (5), 621-626 (1998)
   Neopterygil: Teleostel: Euteleostel: Ostariophysi: Cypriniformes: Cyprinoidea: Cyprinidae: Rasborinae: Danio.
1 (bases 1 to 2873)
1.liao.E.C., Paw, B.H., Oates, A.C., Pratt, S.J., Postlethwait, J.H. and
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Liao, E.C., Paw, B.H., Oates, A.C., Pratt, S.J., Postlethwait, J.H. and
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Submitted (30-JAN-1998) Hematology/Oncology, Harvard Medical
Submitted (30-JAN-1998) Hematology, MA 02115, USA
School, 300 Longwood Avenue, Boston, MA 02115, USA
Location/Qualifiers
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Human mariner-like element-containing mRNA, clone pcHMT1
U48696
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100.0%; Pred. No. 2.3e-32;
tive 0; Mismatches 0;
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/organism="Danio rerio"
/db_xref="taxon:7955"
/chromosome="LG XXII"
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297. .1289
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AFTLSNFAKMYASKFGYDESKUMERLWGENFEDPATKKWTTRNSGNASCKRGFVOFCY
BPIKQIIAACMNDOKDKLLAHVTKLGIQMKTEEKDLMGRPLMKRVWQTWLPASSALLE
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Chases 1 to 2370 Kriyosawa, Reurology Research, The Direct Submission Submitted (07-FEB-1996) Hidenori Kiyosawa, Neurology Research, The Submitted (07-FEB-1996) Philadelphia, 34th & Civic Center Boulevard, Children's Hospital of Philadelphia, 34th & Civic Center Boulevard, Philadelphia, Ph 19104, USA Philadelphia, Ph. 19104, USA 10-cation/Qualifiers
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Vogel, R. and Rausch, T.
Unpublished
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Run on:

January 18, 2000, 21:00:23 ; Search time 3378.13 Seconds (without alignments) 4683.317 Million cell updates/sec US-09-303-232-3 3700 1 ggcacgagccgctgccccac.....gggtaccagtaagtgtaccc 3700 1561122 780561 seqs, 2137953050 residues OM nucleic - nucleic search, using sw model Number of hits that pass the threshold gb_htg3:* gb_htg4:* IDENTITY_NUC GenEmbl:* 0 Title: Perfect score: Sequence: Scoring table: Word size : Jatabase : rched:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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AF143846 3629 bp mRNA Heliothis virescens putative ni 7-1 subunit mRNA, complete cds. AF143846 4895004 AF143846.1 GI:4895004	tobacco budworm. Heliothis virescens Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insec' Eukaryota; Metazoa; Endopterygota; Lepidoptera; Glossata; Pteryotata; Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia; Noctuoidea; Noctuidae; Heliothinae; Heliothis. 1 (bases 1 to 3629) Schulte, T., Oellers, N. and Adamczewski, M. Schulte, T., Oellers, N. and insect nicotinic acetylcholine putative alpha subunits of insect nicotinits and C. elegans more similar to vertebrate alpha 7 subunits and C. elegans than to other insect nicotinic acetylcholine receptor alph
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subunits
Unpublished
2 (bases 1 to 3629)
Schulte,T., Oellers,N. and Adamczewski,M.
Direct Submission
Submitted (19-APR-1999) ZF-BTB, Bayer AG, 51368, Germany

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Drosophila melanogaster DNA sequence (Pl DS05899 (D22)), complete
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Bukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;

Bukaryota; Metazoa; Endopterygota; Diptera; Brachycera;

Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.

1 (bases 1 to 76947)
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AF143846 3629 bp mRNA INV 27-MAY-1999
Heliothis virescens putative nicotinic acetylcholine receptor alpha
7-1 subunit mRNA, complete cds.
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1 (bases 1 to 3629; Schulte,T., Oellers,N. and Adamczewski,M. Schulte,T., Oellers,N. and Adamczewski,M. Putative alpha subunits of insect nicotinic acetylcholine recept more similar to vertebrate alpha 7 subunits and C. elegans Cell than to other insect nicotinic acetylcholine recept than to other alpha
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2 (bases 1 to 76947)

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Berkeley Drosophila Genome Project
Lawrence Barkeley National Laboratory, MS 64-121
Berkeley, C 94720

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Celniker, S.E., Aghavani, A., Arcaina, T.T., Baxter, E., Blazej, R.G., Chew, M., Doyle, C.M., Farfan, D.E., Flanagan, J., Houston, K.A., Hummasti, S.R., Karra, K., Kearney, L., Kin, S.H., Lee, B., Lomoten, M.A., Mazda, P., Mok, M.S., Moshrefi, A.R., Moshrefi, M., Nixon, K., Pacleb, J.M., Park, S., Pfeiffer, B., Punch, D., Snir, E., Twomey, B., Wan, K.H., Whitelaw, K.R., Yee, A., Zhang, R., Zieran, L.L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               34672 CCGCACAGAACAATGAAAGCTGCAGCAGCTGGATAAGGCCGACAAAAACCGAAAATTATAT 34613
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ilarity 99.4%; Pred. No. 2.8e-252;
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